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SITE LOCATION MAPS (FIGURE 1-2) ; PHOTO LOGS (APPENDIX A)

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Rev. 07/10/02

0000093
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SITE ASSESSMENT REPORT
FORD POND SITE
NORTHVILLE, WAYNE COUNTY, MICHIGAN

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5 Emergency Response Branch
25089 Center Ridge Rd.
West Lake, OH 44145

Date Prepared:	02 Aug 02
Contract No.:	68-W-00-129
Technical Direction Document No.:	S05-0206-001
Prepared by:	Tetra Tech EM Inc.
START Project Manager:	Heidi Nemeth
Telephone No.:	(248) 350-9694, ext.5923
U.S. EPA On-Scene Coordinator:	Joe Fredle
Telephone No.:	(440) 250-1740

1.0 INTRODUCTION

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) was tasked to perform site assessment activities at the Ford Pond site in Northville, Wayne County, Michigan, by the U.S. Environmental Protection Agency (U.S. EPA) under Technical Direction Document (TDD) No. S05-0206-001. Specifically, START was tasked to prepare a site health and safety plan; prepare a field sampling plan; perform a site assessment, including a site reconnaissance; perform air monitoring activities; collect soil, oil, and groundwater samples; document site conditions with written logbook notes and a still camera; procure an analytical laboratory; validate sample analytical data; and prepare this site assessment report.

The site assessment was performed in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) as documented in Title 40 of the *Code of Federal Regulations* (CFR), Section 300.415(b)(2), to evaluate site conditions and possible threats to human health, public welfare, and the environment. This report discusses the site background, site assessment activities, sample analytical results, and potential site-related threats, and provides a summary of the site assessment. Appendix A contains a photographic log of site activities, and Appendix B contains the validated analytical data package for samples collected by START.

2.0 SITE BACKGROUND

This section describes the Ford Pond site and discusses the site history.

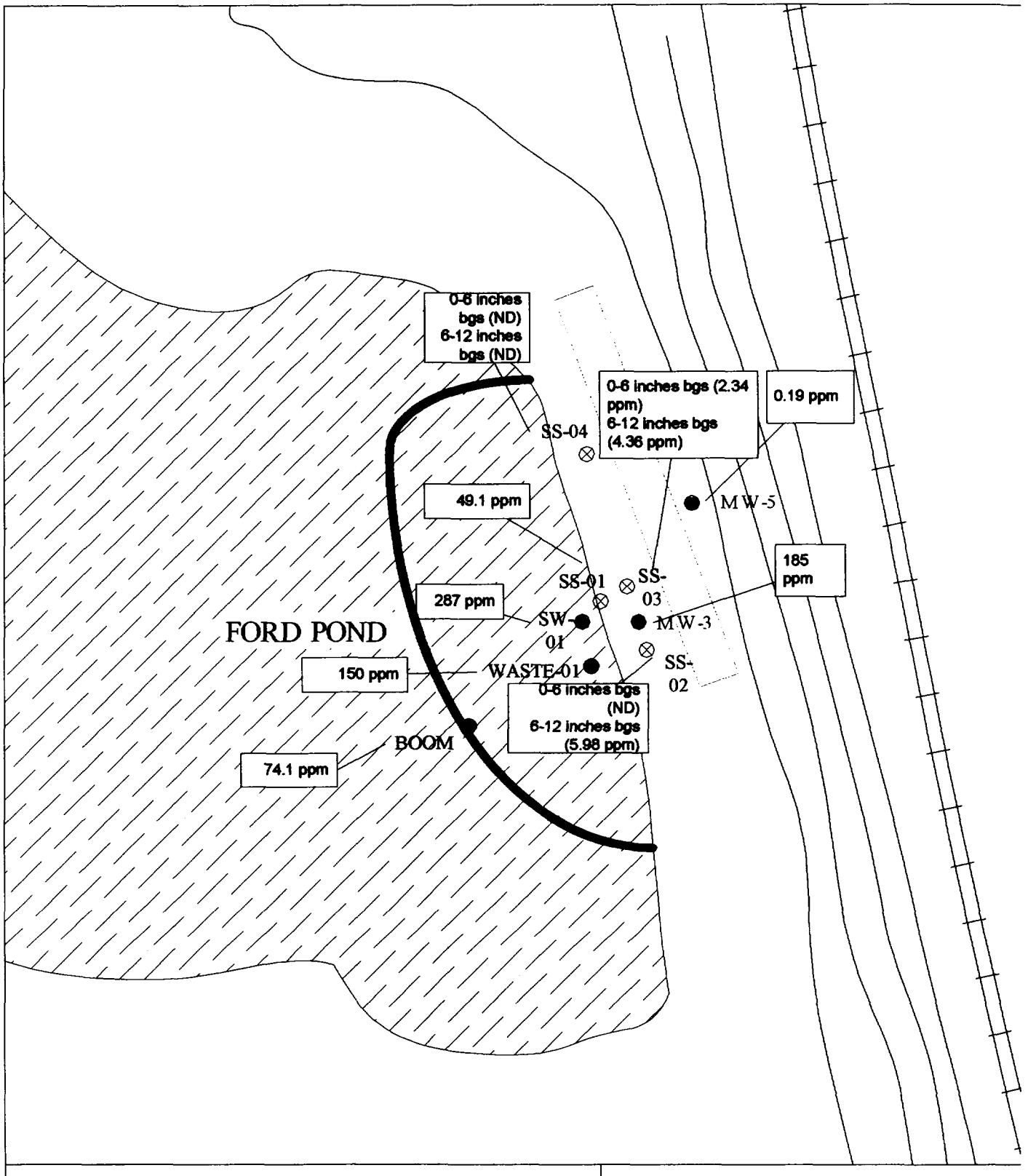
2.1 SITE DESCRIPTION

The Ford Pond site is located just west of 175 Railroad Street in Northville, Wayne County, Michigan (see Figure 1). This address is for the facility closest to the site, General Oil, an oil recycling facility. The Ford Pond site consists of the east end of Ford Pond and land around that portion of the pond (see Figure 2). The Ford Pond site is bordered to the north by vegetation and a residential area, to the east by the CSX Railroad and General Oil facility, to the south by Main Street, and to the west by the Water Wheel Health Club. The property is currently owned by the State of Michigan.

2.2 SITE HISTORY

The Ford Pond site is located in a public park for the residents of Northville. The primary use of the pond is for leisure fishing. The General Oil facility east of the site was a coal depot from the late 1800s through 1950. In 1950, the General Oil property was occupied by Mergraf Oil. In 1963, Mergraf Oil reportedly created five unlined lagoons at the property to recover waste oils. Two of the lagoons in the northwestern portion of the Mergraf Oil property are located near the Ford Pond site. These lagoons were removed or filled by 1990. General Oil purchased the Mergraf Oil-occupied property in 1982 for blending recovered oils. In 1983, a light nonaqueous-phase liquid (LNAPL) was discovered seeping into Ford Pond from the General Oil property. The LNAPL appears to be a direct result of leakage from the northwest lagoons.

The Ford Pond site was first brought to the attention of the Michigan Department of Environmental Quality (MDEQ) in 1985. MDEQ has conducted several site assessments since, and analytical results from groundwater and soil samples collected by MDEQ indicated the presence of elevated polychlorinated biphenyl (PCB) concentrations at the site. Monitoring wells installed by MDEQ indicated the presence of LNAPL. The potentially responsible party (PRP) installed a capture trench designed to prevent the LNAPL from entering Ford Pond as well as boom to prevent any further LNAPL migration (see Figure 2). In June 02, MDEQ referred the site to U.S. EPA.



FORD POND
NORTHVILLE, WAYNE COUNTY, MICHIGAN
TDD NO. S05-0206-001

FIGURE 2
SITE LAYOUT AND
SAMPLING LOCATION MAP

Tetra Tech EM Inc

3.0 SITE ASSESSMENT ACTIVITIES

Site assessment activities included a site reconnaissance and sampling. Each activity is discussed below.

3.1 SITE RECONNAISSANCE

On 17 Jun 02, START met with MDEQ to review progress made at the Ford Pond site and conduct a site walk-through. Based on the site walk-through observations and past site assessments, START developed a field sampling plan (FSP). Sample locations and parameters specified in the FSP were chosen under the direction of the U.S. EPA On-Scene Coordinator (OSC). On 18 and 27 Jun 02, START conducted air monitoring, site mapping, and sampling. START performed initial site entry in Level D personal protective equipment and conducted air monitoring using a Ludlum radiation meter, a Photovac MicroFID™ flame ionization detector (FID), and a ToxiRAE photoionization detector (PID). START also monitored percent oxygen (O_2) and carbon monoxide (CO) concentrations in parts per million (ppm), and percent lower explosive limit (LEL) for explosive gases using a PhD Lite™ gas meter. Table 1 identifies the gases used to calibrate each instrument and the air monitoring results.

TABLE 1

AIR MONITORING RESULTS FOR 18 JUN 02

Monitoring Parameter	Calibration Gas	Calibration Gas Concentration	Highest Monitoring Concentration	Lowest Monitoring Concentration
VOCs with PID	Isobutylene	100 ppm	ND	ND
VOCs with FID	Methane	100 ppm	ND	ND
CO	CO	35 ppm	ND	ND
O_2	O_2	23.9 percent	21.6 percent	20.5 percent
LEL	Pentane	50 percent	ND	ND
Radiation	NA	NA	9 µRad/hr	7 µRad/hr

Notes:

CO = Carbon monoxide
FID = Flame ionization detector

NA	=	Not applicable
ND	=	Not detected
O_2	=	Oxygen
PID	=	Photoionization detector
ppm	=	Part per million
VOC	=	Volatile organic compound
µRad/hr	=	Microrad per hour

Once the site was cleared for entry, START documented the site layout and conditions. The site land is grass-covered and empty except for the capture trench. Stained soils along the Ford Pond shoreline were sampled. START selected other sampling locations for the site assessment based on the FSP developed for the Ford Pond site.

3.2 SAMPLING ACTIVITIES

On 18 and 27 Jun 02, START conducted sampling activities at the Ford Pond site. Figure 2 shows the site sampling locations. START collected a total of 14 samples under the direction of the OSC, including eight soil samples, one groundwater sample, three oil samples, and two quality assurance/quality control samples. START used a disposable spoon to collect surface soil sample SS-01 from 0 to 6 inches below ground surface (bgs) along the edge of the pond. START used a hand auger to collect six other soil samples at three additional locations (SS-02, SS-03, and SS-04) between the pond and the CSX Railroad tracks(see Figure 2). START also collected a sample of the existing oil boom (Boom). A small portion of the boom was cut out and placed in a container for PCB analysis. The boom sample was analyzed as a soil sample by the laboratory (see Appendix B). All samples were collected in accordance with Tetra Tech standard operating procedure (SOP) No. 005 and analyzed for PCBs, the site contaminant of concern. START also sampled LNAPL visibly contaminating surface water in the eastern portion of the pond. START separated the LNAPL from the surface water by skimming the LNAPL directly into the sample containers. START collected one surface LNAPL sample and one duplicate sample for PCB analysis. Surface LNAPL samples were collected in accordance with sampling protocols documented in Tetra Tech SOP No. 009.

START collected an LNAPL and a groundwater sample from two of the monitoring wells located east of the pond (MW-03 and MW-05). Samples were collected using a disposable bailer in accordance with

Tetra Tech SOP No. 010.

The samples were containerized, labeled, and placed in a cooler containing ice. On 18 Jun 02, 12 samples were shipped by Federal Express to Test America Inc. (TAI) in Nashville, Tennessee, for PCB analysis in accordance with chain-of-custody procedures. The remaining two samples were shipped by Federal Express to TAI on 27 Jun 02 for PCB analysis.

4.0 SAMPLE ANALYTICAL RESULTS

TAI analyzed the 14 samples collected on 18 and 27 Jun 02 for PCBs under analytical TDD No. S05-0206-001. The correlation between analytical results and sampling locations shown is in Figure 2. Sample analytical results are summarized in Table 2.

TABLE 2

SAMPLE RESULTS SUMMARY

Sample No.	Medium	Description	PCB Results
MW-03	Oil	LNAPL	185.0 ppm
MW-05	Groundwater	LNAPL	0.1932 ppm
SW-01	Oil	LNAPL	25.0 ppm
SW-01 (duplicate)	Oil	LNAPL	287 ppm
SS-01	Soil	Surface soil	49.1 ppm
SS-02	Soil	Soil at 0 to 6 inches bgs	ND
SS-02	Soil	Soil at 6 to 12 inches bgs	5.98 ppm
SS-03	Soil	Soil at 0 to 6 inches bgs	4.36 ppm
SS-03	Soil	Soil at 6 to 12 inches bgs	2.34 ppm
SS-04	Soil	Soil at 0 to 6 inches bgs	ND
SS-04	Soil	Soil at 6 to 12 inches bgs	ND
BLK	Water	Trip blank	ND
Waste-01	Oil	LNAPL	150 ppm
Boom	Soil	Boom	74.1 ppm

Notes:

bgs = Below ground surface
BLK = Blank
LNAPL= Light nonaqueous-phase liquid
MW = Monitoring well
SW = Surface water
SS = Surface soil
ND = Not detected
ppm = Parts per million

A layer of LNAPL was found in both monitoring wells MW-3 and MW-5 as well as on the surface of the

5.0 POTENTIAL SITE-RELATED THREATS

Based on NCP Section 300.415, "U.S. EPA may take removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate a release or a threat of a release to the public health or welfare of the United States or the environment." Paragraph (b)(2) of Section 300.415 lists eight factors to be considered when determining the appropriateness of a removal action. NCP factors applicable to the Ford Pond site are discussed below.

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants: Hazardous substances have been identified and confirmed at the Ford Pond site through laboratory analysis of samples collected at the site. The site is located in a public park, and portions of the site can be easily accessed by the public. The site is also accessed by city and county workers. During the site assessment, START witnessed adults, children, domestic pets, and city workers on site. START determined that contamination from the pond could be attributed to migration of the LNAPL found in the monitoring wells. Analytical results for samples collected by START identified PCBs as the primary constituent of concern at the site. No sensitive environments were identified in the site area that could be impacted by site-related contamination.

PCBs are mixtures of up to 209 individual chlorinated compounds known as congeners. Many commercial PCB mixtures are known in the United States by the trade name "Aroclor ." PCBs are very harmful to humans and the environment. PCBs do not readily break down in the environment and thus remain there for a long period of time and bioaccumulate. Humans can be exposed to PCBs through ingestion, inhalation, and dermal contact. Exposure to high levels of PCBs can cause skin rashes, acne, liver damage, anemia, stomach injuries, and cancer.

Although a boom is present on Ford Pond to contain oil, families were observed fishing in the pond at the time of the site assessment. PCBs in the pond could bioaccumulate in the food chain, impacting aquatic life and posing a potential risk to humans that consume any fish from the pond.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the

surface that may migrate: The levels of PCBs in surface soil shows that the contaminants have already migrated a considerable distance and the capture trench designed to capture the oil is not adequately preventing further migration. These contaminants have the potential to further impact the pond and its sediments.

The availability of other appropriate federal or state response mechanisms to respond to the release: MDEQ has been monitoring, sampling, and investigating the site since 1985. MDEQ requested assistance from U.S. EPA because of the extent contamination and because U.S. EPA has significant expertise in addressing PCB contamination at similar sites.

6.0 SUMMARY

The Ford Pond site is located west of 175 Railroad Street in Northville, Wayne County, Michigan, in a residential, commercial, and light industrial area. Analytical results for samples collected from on-site monitoring wells, soil, and oil indicate the presence of PCBs. The Ford Pond site is part of a public park. Therefore, local residents, workers, and animals can access the area because it is not secured. The site meets the criteria for initiating a removal action as outlined in NCP Section 300.415 (b)(2).

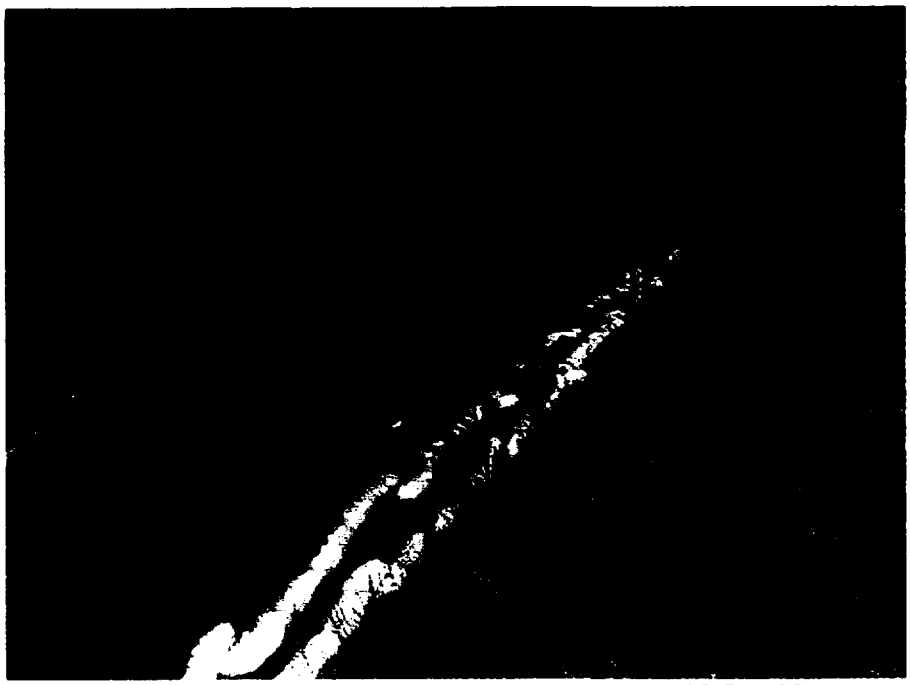
APPENDIX A

PHOTOLOG

(FOUR PAGES)

Photograph No.: 1 Date: 18 Jun 02
TDD No. S05-0206-001 Orientation: North
Location: Ford Pond site
Subject: START collecting light non-aqueous phase liquid (LNAPL) from monitoring well #3

Photograph No.: 2 Date: 18 Jun 02
TDD No. S05-0206-001 Orientation: Southeast
Location: Ford Pond site
Subject: START collecting visibly stained soil sample along shoreline of Ford Pond

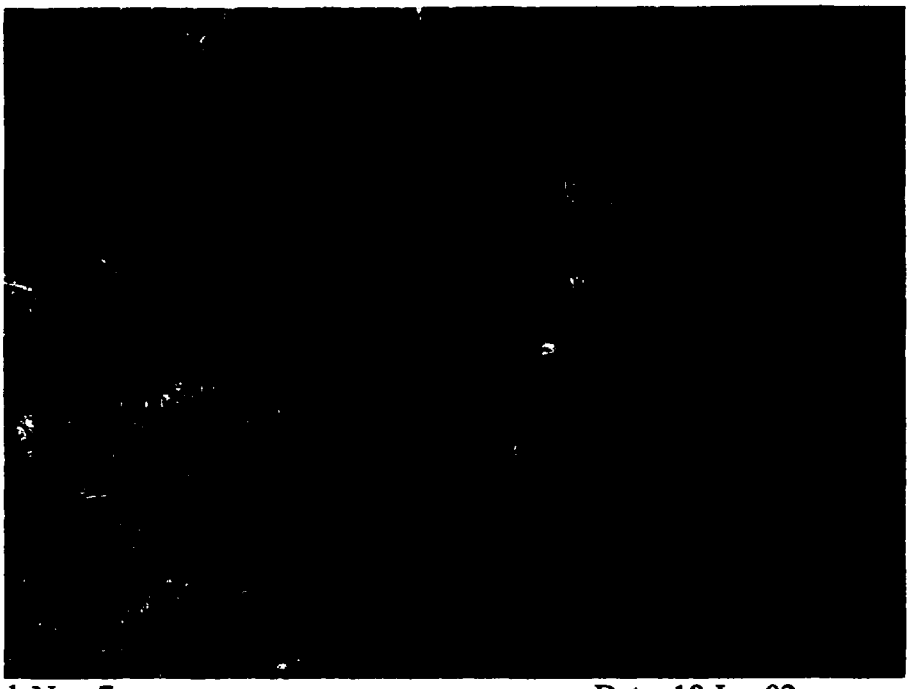


Photograph No.: 3 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: West
Location: Ford Pond site
Subject: Potentially responsible party (PRP) boom set up to contain migration of LNAPL

Photograph No.: 4 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: Southwest
Location: Ford Pond site
Subject: START collecting LNAPL from surface water of Ford Pond

Photograph No.: 5 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: West
Location: Ford Pond site
START using hand auger to collect soil samples at 0-6 and 6-12 inches below ground surface

Photograph No.: 6 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: East
Subject: Ford Pond site
Subject: Capture trench



Photograph No.: 7 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: South
Location: Ford Pond site
Subject: Monitoring well MW-03

Photograph No.: 8 Date: 18 Jun 02
TDD No.: S05-0206-001 Orientation: North
Location: Ford Pond site
Subject: Monitoring well MW-05

APPENDIX B

DATA VALIDATION REPORT

(FIVE PAGES)

Tetra Tech EM Inc.

26600 Telegraph Road, Suite 400 ◆ Southfield, MI 48034 ◆ (248) 350-9694 ◆ Fax (248) 223-9911

MEMORANDUM

Date: July 26, 2002

To: Heidi Nemeth, Project Manager, Tetra Tech EM Inc. (Tetra Tech)
Superfund Technical Assessment and Response Team (START) for
Region 5

From: Anne Troup, Chemist, Tetra Tech START for Region 5

Subject: Data Validation for
Ford Pond Site
Northville, Michigan
Analytical Technical Direction Document (TDD)No. S05-0206-002
Project TDD No. S05-0206-001

Laboratory: Test America Inc. (TAI), Nashville, Tennessee
Work Order No. 280734 and 290100
Polychlorinated Biphenyl (PCB) Analysis for Eight Soil Samples, Four Oil Samples, and Two Water Samples

1.0 INTRODUCTION

The Tetra Tech START for Region 5 validated PCB analytical data for eight soil, four oil, and two water samples collected on June 18 and 27,2002, during a site assessment at the Ford Pond site in Northville, Michigan. The samples was analyzed under the above-referenced work orders by TAI using U.S. Environmental Protection Agency (U.S. EPA) SW846 Method 8082 for PCB analysis.

The data were validated in general accordance with U.S. EPA's "Contract Laboratory Program National Functional Guidelines for Organic Data Review" dated October 99. Organic data validation consisted of a

contains recycled fiber and is recyclable

review of the following quality control (QC) parameters: holding times, instrument performance checks, initial and continuing calibrations, blank results, surrogate recovery results, matrix spike and matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, internal standard results, and target compound identification and quantitation.

Section 2.0 discusses the results of the organic data validation, and Section 3.0 presents an overall assessment of the data. The attachment to this memorandum contains TAI's summary of analytical results.

2.0 ORGANIC DATA VALIDATION RESULTS

The results of START's organic data validation are summarized below in terms of the QC parameters reviewed.

2.1 HOLDING TIMES

The sample were analyzed within the established or recommended holding time limits of (1) 7 days to extraction and 40 days from extraction to analysis for water samples and (2) 14 days to extraction and 40 days from extraction to analysis for soil and oil samples.

2.2 INSTRUMENT PERFORMANCE CHECKS

The chromatographic resolution between peaks was adequate for the PCB analysis.

2.3 INITIAL AND CONTINUING CALIBRATIONS

For the PCB analysis, the initial calibration was within the QC limit of less than or equal to 20 percent relative standard deviation for the average of the five calibration factors (CF) for a single Aroclor. The continuing calibration standards were within the QC limit of less than or equal to 15 percent difference

between the mean CF of the initial calibration curve and the CF of the continuing calibration.

2.4 BLANK RESULTS

Method blanks were run with the analytical batch in the proper sequence. No analytes were detected in the blanks at concentrations exceeding the instrument detection limits.

2.5 SURROGATE RECOVERY RESULTS

Recoveries for the surrogates for the PCB analyses were within the QC limits specified by the laboratory with the following exception: decachlorobiphenyl (DCB) exceeded the QC limit for Column II in both run batches for the performance blanks for Work Order No. 280734. The surrogate recoveries were "diluted out" in the various samples. No qualifications are warranted for these discrepancies.

2.6 MS/MSD RESULTS

Percent recoveries for MS and MSD samples were within the QC limits established by the laboratory for the soil and water PCB analyses. Because of the oil matrix of the sample for Work Order No. 280734-Batch 4156, MS/MSD samples were not extracted. In addition, the MS/MSD results for Work Order No. 290100 oil sample analysis exceeded the QC limits for Aroclor 1016. Aroclor 1016 was not detected in the samples, therefore no qualification is necessary.

2.7 LCS RESULTS

The LCS results were within the QC limits established by the laboratory, except for Aroclor 1016 in Work Order No. 280734, Batch 4156, which exceeded the QC limit. However, because Aroclor 1016 was not

detected in the samples, no qualification is necessary.

2.8 INTERNAL STANDARD RESULTS

Internal standards are not used for PCB analyses.

2.9 TARGET COMPOUND IDENTIFICATION AND QUANTITATION

The retention times for the target compounds detected matched those for the standards.

Analytical results were randomly spot-checked against raw data and extraction logs for the organic analyses. The results checked were calculated correctly.

3.0 OVERALL ASSESSMENT OF DATA

The overall quality of the data generated by TAI is acceptable, and the data can be used for any purpose.

ATTACHMENT

SUMMARY OF TAI'S ANALYTICAL RESULTS

(16 PAGES)

TestAmerica
INCORPORATED

6/28/02

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project G9009E0206001 FORD POND. The Laboratory Project number is 290100. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
SS-01	02-A102717	6/18/02
SS-02	02-A102718	6/18/02
SS-03	02-A102719	6/18/02
SS-03	02-A102720	6/18/02
SS-02	02-A102721	6/18/02
SS-04	02-A102722	6/18/02
SS-04	02-A102723	6/18/02
MW-03	02-A102724	6/18/02
DUP	02-A102725	6/18/02
SW-01	02-A102726	6/18/02
MW-05	02-A102727	6/18/02
BLK	02-A102728	6/18/02

TestAmerica
INCORPORATED

ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102717
Sample ID: SS-01
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 11:50
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	<1.82	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1221	<3.64	mg/kg	3.64	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1232	<1.82	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1242	39.4	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1248	<1.82	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1254	9.70	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
Aroclor 1260	<1.82	mg/kg	1.82	50	6/26/02	16:17	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	82.5	%			6/26/02	11:30	K. Keller	CLP	5209

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	20.0 gm	10.0 ml	6/25/02		M. Cauthen	3550

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102718
Sample ID: SS-02
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:12
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.478	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1221	<0.956	mg/kg	0.956	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1232	< 0.478	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1242	< 0.478	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1248	3.54	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1254	2.44	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
Aroclor 1260	< 0.478	mg/kg	0.478	20	6/26/02	16:40	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	83.6	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	30.0 gm	10.0 ml	6/25/02		M. Cauthen	3550

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102719
Sample ID: SS-03
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:17
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.110	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1221	< 0.219	mg/kg	0.219	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1232	< 0.110	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1242	< 0.110	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1248	< 0.110	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1254	1.97	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
Aroclor 1260	2.39	mg/kg	0.110	5	6/27/02	13:32	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	91.2	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	30.4 gm	10.0 ml	6/25/02		M. Cauthen	3550

Sample report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102720
Sample ID: SS-03
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:18
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.422	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1221	<0.844	mg/kg	0.844	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1232	< 0.422	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1242	< 0.422	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1248	< 0.422	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1254	< 0.422	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
Aroclor 1260	2.34	mg/kg	0.422	20	6/26/02	17:25	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	94.7	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	30.4 gm	10.0 ml	6/25/02		M. Cauthen	3550

Sample report continued . . .

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102721
Sample ID: SS-02
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:10
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1221	< 0.0478	mg/kg	0.0478	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1232	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1242	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1248	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1254	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
Aroclor 1260	< 0.0239	mg/kg	0.0239	1	6/26/02	14:24	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	83.7	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	30.5 gm	10.0 ml	6/25/02		M. Cauthen	3550

Surrogate	% Recovery	Target Range

Sample report continued . . .

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102722
Sample ID: SS-04
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:20
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1221	<0.122	mg/kg	0.122	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1232	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1242	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1248	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1254	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
Aroclor 1260	< 0.0613	mg/kg	0.0613	1	6/26/02	15:32	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	49.3	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	19.9 gm	10.0 ml	6/25/02		M. Cauthen	3550

Surrogate	% Recovery	Target Range

Sample report continued . . .

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102723
Sample ID: SS-04
Sample Type: Soil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:22
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1221	< 0.0617	mg/kg	0.0617	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1232	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1242	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1248	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1254	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
Aroclor 1260	< 0.0309	mg/kg	0.0309	1	6/26/02	15:55	D. Desouza	8082	7784
GENERAL CHEMISTRY PARAMETERS									
% Dry Weight	64.8	%			6/26/02	16:30	K. Keller	CLP	5210

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB's	29.6 gm	10.0 ml	6/25/02		M. Cauthen	3550

Surrogate	% Recovery	Target Range

Sample report continued . . .

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102724
Sample ID: MW-03
Sample Type: Oil
Site ID:

Date Collected: 6/18/02
Time Collected: 11:40
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1221	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1232	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1242	147.	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1248	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1254	38.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1260	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB	1.0 g	10.0 ml	6/26/02		M. Cauthen	

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
- Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102725
Sample ID: DUP
Sample Type: Oil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:00
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1221	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1232	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1242	182.	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1248	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1254	105.	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1260	<30.0	mg/kg	30.0	50	6/27/02	9:36	D. Desouza	8082	8837

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB	1.0 g	10.0 ml	6/26/02		M. Cauthen	

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
- Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102726
Sample ID: SW-01
Sample Type: Oil
Site ID:

Date Collected: 6/18/02
Time Collected: 12:00
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1221	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1232	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1242	25.0	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1248	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1254	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837
Aroclor 1260	< 6.00	mg/kg	6.00	10	6/27/02	9:36	D. Desouza	8082	8837

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
PCB	1.0 g	10.0 ml	6/26/02		M. Cauthen	

LABORATORY COMMENTS:

ND - Not detected at the report limit.
B - Analyte was detected in the method blank.
J - Estimated Value below Report Limit.
- Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102727
Sample ID: MW-05
Sample Type: Water
Site ID:

Date Collected: 6/18/02
Time Collected: 11:20
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
PESTICIDES/PCB's/HERBICIDES									
Aroclor 1016	< 5.00	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1221	<10.0	ug/l	10.0	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1232	< 5.00	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1242	152.	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1248	< 5.00	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1254	41.2	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904
Aroclor 1260	< 5.00	ug/l	5.00	1	6/27/02	11:09	D. Desouza	608	6904

ND = Not detected at the report limit.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OC Pest	50. ml	5. ml	6/24/02		D. Harris	608
PCB's	50.0 ml	5.00 ml	6/24/02		D. Harris	608

Sample report continued . . .

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ANALYTICAL REPORT

TETRA TECH EMI 10553

26600 Telegraph Rd.ste.400
Southfield, MI 48034

Project: G9009E0206001
Project Name: FORD POND
Sampler: BRIAN SCHLIEGER

Lab Number: 02-A102728
Sample ID: BLK
Sample Type: Water
Site ID:

Date Collected: 6/18/02
Time Collected: 12:15
Date Received: 6/19/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES									
Aroclor 1016	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1221	<10.0	ug/kg	10.0	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1232	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1242	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1248	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1254	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904
Aroclor 1260	< 5.00	ug/kg	5.00	1	6/25/02	19:31	D. Desouza	608	6904

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OC Pest	50. ml	5. ml	6/24/02		D. Harris	608
PCB's	50.0 ml	5.00 ml	6/24/02		D. Harris	608

Surrogate	% Recovery	Target Range
pest surr-TCMX	71.	53. - 125.
pest surr-DCB	87.	15. - 153.

Sample report continued . . .

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Sample Identification

WASTE-01

Matrix: Oil
% Dry Weight:
Units: ug/kg
Dilution Factor: 10.
Analysis Method: 8082
Delivery Group: 290980
Instrument: Shim-7

Lab Sample ID: 02-A106783
Date Sampled: 6/27/02
Date Received: 6/28/02
Analysis Date: 7/ 3/02
Analysis Time: 0:53
Sample QC Group: 4156

FORM I

CAS NUMBER	ANALYTE	CONCENTRATION	FLAG
12674-11-2	Aroclor 1016	6000	U
11104-28-2	Aroclor 1221	6000	U
11141-16-5	Aroclor 1232	6000	U
53469-21-9	Aroclor 1242	150000	
12672-29-6	Aroclor 1248	6000	U
11097-69-1	Aroclor 1254	6000	U
11096-82-5	Aroclor 1260	6000	U

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Sample Identification

BOOM

Matrix: Soil
pH:
Units: ug/kg dry weight
Dilution Factor: 100.
Analysis Method: 8082
Delivery Group: 290980
Instrument: Shim-7

Lab Sample ID: 02-A106784
Date Sampled:: 6/27/02
Date Received: 6/28/02
Analysis Date: 7/ 5/02
Analysis Time: 19:25
Sample QC Group: 4159

FORM I

CAS NUMBER	ANALYTE	CONCENTRATION	FLAG
12674-11-2	Aroclor 1016	3250	U
11104-28-2	Aroclor 1221	6500	U
11141-16-5	Aroclor 1232	3250	U
53469-21-9	Aroclor 1242	74100	
12672-29-6	Aroclor 1248	3250	U
11097-69-1	Aroclor 1254	3250	U
11096-82-5	Aroclor 1260	3250	U